

REMARKS/ARGUMENTS

Favorable reconsideration of the present application is respectfully requested. Claims 1 - 17 and 19 - 55 are currently pending. Claims 1, 14, 19, 27, 29-31, 36-38, 42-44, 52 and 53 have been amended. Claim 18 has been canceled.

Claim 37 is rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Applicant respectfully disagrees and traverses the rejection. Claim 37 recites that the “cured panel contains shrapnel between the elastomeric panel and the surface of the structure.” Applicant believes that the Examiner has misinterpreted the above claim language, which clearly states that the panel contains shrapnel between the panel and the structure surface. In other words the panel holds/keeps any shrapnel that may come off the structure surface between the panel and the structure surface. Therefore, nothing in the claim language indicates “a panel containing shrapnel” as asserted by the Examiner. Accordingly, the Examiner is respectfully requested to formally withdraw the §112, first paragraph, rejection of Claim 37.

Claims 35 and 52 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicant has amended Claim 35 to overcome the rejection and now recites: “said channel is adapted to be fastened to an interior surface of said structure.” Therefore, the Examiner is respectfully requested to formally withdraw the §112, second paragraph, rejection of Claim 35.

Regarding Claim 52, Applicant respectfully traverses the rejection. The given “1200 psi by 1200 psi” is the tensile strength in the x and y directions for the substantially planar fabric reinforcing layer and which is disclosed on page 9, lines 22-23 of the Specification of the instant Application. Therefore, the Examiner is

respectfully requested to formally withdraw the §112, second paragraph, rejection of Claim 52.

Claims 1, 2, 6, 7, 12, 14, 15, and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Diamond (United States Patent Application Publication Number 2002/0184841). Applicant has amended Claims 1 and 14 to overcome the rejection.

Regarding Claim 1, Claim 1 has been amended to recite, *inter alia*:

“spraying a layer of an elastomeric material to form a blast resistant panel of a predetermined thickness in the range of about 100 mil to about 250 mil; and

once cured, securing said blast resistant panel to a surface of said structure so that the blast resistant panel extends from at least two opposing edges of the surface of said structure.”

In contrast, Diamond does not form a “blast resistant panel of a predetermined thickness in the range of about 100 mil to about 250 mil; and . . . securing said blast resistant panel to a surface of said structure so that the blast resistant panel extends from at least two opposing edges of the surface of said structure.” Instead, Diamond forms a compressible structure with a minimum thickness of 0.5 inches (500 mil) that is to be temporarily positioned over glass panes in a window that is disposed in a wall in a building to cushion and absorb forces from high winds and wind-borne debris to protect the glass panes from shattering and damage (*see*, Diamond, Paragraphs [0003] and [0009]). As a result, Diamond’s compressible structure does not extend from at least two opposing sides of the surface of the structure, as recited in Claim 1.

While the invention in Diamond operates to temporarily protect the glass pane from damage (i.e., breaking) due to storms and wind-borne debris, it is **not** a blast resistant panel as recited in Claim 1. In fact, the compressible structure in Diamond could itself become shrapnel, if an explosion as described in the instant Application were to occur near a building with the compressible structure over the glass panes. There is no disclosure or suggestion in Diamond that the compressible structure

therein is a blast resistant panel having a thickness in the range of between 100 mil and 250 mil or that the compressible structure extends from at least two opposing edges of the surface of the structure. Therefore, the §102(b) rejection of Claim 1 is believed to be overcome. Accordingly, the Examiner is respectfully requested to formally withdraw the §102(b) rejection of Claim 1 and Claims 2, 6, 7 and 12 that depend therefrom.

Regarding Claim 14, Claim 14 has been amended to recite, *inter alia*:

“A blast-resistant panel comprising:

a cured layer of a sprayed elastomeric material having a predetermined thickness in the range of about 100 mil to about 250 mil, and

fastener elements for securing said cured layer to a surface of a structure so that the cured layer extends from at least two opposing edges of the surface of said structure.”

In contrast, and as discussed above in relation to Claim 1, the compressible structure in Diamond is not a “blast resistant panel having a predetermined thickness in the range of about 100 mil to about 250 mil, and fastener elements for securing said cured layer to a surface of a structure so that the cured layer extends from at least two opposing edges of the surface of said structure,” as recited in Claim 14. The compressible structure in Diamond is a cushion that acts to prevent the shattering or fracturing of the glass pane underneath the compressible structure, it is not a blast-resistant panel and there is no disclosure or suggestion in Diamond that the compressible structure would function as one. Therefore, for at least those same reasons given above for Claim 1, the rejection of Claim 14 is also believed to be overcome, and the Examiner is respectfully requested to formally withdraw the rejection of Claim 14 and claims 17 and 19 that depend therefrom.

Please cancel Claim 118.

Regarding Claim 19, Claim 19 recites, *inter alia*:

“the blast resistant panel has a thickness of about 180 mil.”

Contrary to the Examiner’s assertion, neither the claimed 100-250 mil range in Claim 14 (originally in original Claim 18, now canceled), which equals 0.1-0.25 inches, or the claimed 180 mil thickness of Claim 19, which equals 0.18 inches, falls within the 0.5 to 12 inch range disclosed in Diamond. Therefore, because each and every element of Claim 19 is not disclosed by Diamond, the Examiner has failed to satisfy the initial burden of proving a *prima facie* case of anticipation of Claims 18 and 19. Therefore, the Examiner is respectfully requested to formally withdraw the rejection of Claim 19.

Accordingly, the Examiner is respectfully requested to formally withdraw the Section 102(b) rejection of and issue a Notice of Allowance for Claims 1, 2, 6, 7, 12, 14, 15, 17, and 19.

Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond in view of Fyfe (United States Patent Number 6,806,212) and both depend from independent Claim 1. Applicant respectfully traverses the rejection.

Fyfe fails to make up for the deficiency of Diamond and although it may teach or suggest the use of polyurea as in Claims 3 and 8, unlike the temporary, compressible structure in Diamond, the composite coating disclosed in Fyfe is not compressible and it is designed to be permanently applied directly to a structure. In addition, there is nothing in Fyfe that provides a teaching or suggestion to motivate one of skill in the art to combine the teachings in the two references. Specifically, in Fyfe a non-compressible composite coating is formed using two components that mix in flight and begin to cure immediately after being shot from a mixing/spray gun on their way directly to a surface to which they are being applied. In contrast, in Diamond a one- or two-component foam system is used to fill a shaping member,

which acts as a mold for the foam, with a compressible material. As a result, using the non-compressible composite coating of Fyfe in place of Diamond's fluidic polymeric foam, which dries to form the compressible structure in Diamond, would render Diamond inoperative for its intended purpose, namely providing a compressible structure that when installed directly against a glass pane will absorb the impact of debris against the compressible structure and prevent the glass pane from breaking. In contrast, installing the non-compressible version created by the combination of Diamond and Fyfe directly against the glass pane will not absorb the force of the impact of debris. Instead, the non-compressible version will merely transmit the force of the impact to the glass pane and, if it is sufficient, cause the glass pane to break. In fact, because the properties of the non-compressible version are similar to those prior art systems disparaged by Diamond (for example, plywood), for the non-compressible version filled with Fyfe's composite coating to protect the glass panes in the window, it would have to be installed similar to a piece of plywood (*see*, Diamond, page 1, paragraph [0005]). Therefore, there is no teaching or suggestion in Fyfe that would motivate one of skill in the art to combine Diamond and Fyfe as asserted by the Examiner. Accordingly, the Examiner is respectfully requested to formally withdraw the §103(a) rejection of Claims 3 and 8.

Claims 4, 5, 9, 10, and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond in view of Fyfe and obviously depend from independent Claims 1 and 14. Applicant respectfully traverses the rejection. Fyfe fails to make up for the deficiency of Diamond and also fails to teach or suggest all of the elements of Claims 1 and 14. Therefore, for at least those reasons given above in relation to Diamond for independent Claims 1 and 14, the §103(a) rejection of Claims 4, 5, 9, 10,

and 20-22 is also believed to be overcome. Accordingly, the Examiner is respectfully requested to formally withdraw the §103 rejection of Claims 4, 5, 9, 10, and 20-22.

Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond in view of Makami et al. (United States Patent Number 4,478,895) and both depend from independent Claim 1. Applicant respectfully traverses the rejection. Makami et al. fails to make up for the deficiency of Diamond and also fails to teach or suggest all of the elements of Claim 1. Therefore, for at least those reasons given above in relation to Diamond for independent Claim 1, the § 103(a) rejection of Claims 11 and 13 is also believed to be overcome. Accordingly, the Examiner is respectfully requested to formally withdraw the §103 rejection of Claims 11 and 13.

Claim 16 is rejected under 35 USC 103(a) as being unpatentable over Diamond in view of Fyfe and depends from independent Claim 14. Applicant respectfully traverses the rejection. Fyfe fails to make up for the deficiency of Diamond and also fails to teach or suggest all of the elements of Claim and 14. Claim 16 contains similar language to that of Claims 3 and 8, therefore, for at least those reasons given above in relation to Diamond for independent Claim 14 and dependent Claims 3 and 8, the § 103(a) rejection of Claim 16 is also believed to be overcome. Accordingly, the Examiner is respectfully requested to formally withdraw the §103 rejection of Claim 16.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond in view of Makami et al. and depends from independent Claim 14. Applicant respectfully traverses the rejection. Makami et al. fails to make up for the deficiency of Diamond and also fails to teach or suggest all of the elements of Claim 14. Therefore, for at least those reasons given above in relation to Diamond for

independent Claim 14, the § 103(a) rejection of Claim 23 is also believed to be overcome. Accordingly, the Examiner is respectfully requested to formally withdraw the §103 rejection of Claim 23.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond in view of Fyfe and further in view of Makami et al. and ultimately depends from independent Claim 14. Applicant respectfully traverses the rejection. Fyfe and Makami et al. fail to make up for the deficiency of Diamond and also fail to teach or suggest all of the elements of Claim and 14. Therefore, for at least those reasons given above in relation to Diamond for independent Claim 14, the § 103(a) rejection of Claim 24 is also believed to be overcome. Accordingly, the Examiner is respectfully requested to formally withdraw the §103 rejection of Claim 24.

Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond in view of Fyfe and Makami et al. and further in view of Benedict et al. (United States Patent Number 5,681,612) and ultimately depend from independent Claim 14. Applicant respectfully traverses the rejection. Fyfe, Makami et al. and Benedict et al. fail to make up for the deficiency of Diamond and also fail to teach or suggest all of the elements of Claim 14. Therefore, for at least those reasons given above in relation to Diamond for independent Claim 14, the § 103(a) rejection of Claims 25 and 26 are also believed to be overcome. Accordingly, the Examiner is respectfully requested to formally withdraw the §103 rejection of Claims 25 and 26.

Claims 27, 28, 30-35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (United States Patent Number 6,269,597) in view of Madden Jr. (United States Patent Number 5,811,719) and 28 depends from independent Claim 27, and 31-35, and 37 depend from independent Claim 30. Claims 27 and 30 have been amended to overcome the rejection.

Regarding Claim 27, Claim 27 recites, *inter alia*:

one or more flexible, blast-resistant panels having a predetermined thickness in a range between about 100 mil and 250 mil and constructed of an elastomeric material sprayed onto a fabric reinforcing layer,

said one or more flexible, blast-resistant panels having a steel channel fastened around a periphery thereof; and

a plurality of fasteners adapted to fasten said steel channel and said one or more flexible, blast-resistant panels to a wall of said structure so as to cover the wall of the structure with said one or more flexible, blast-resistant panels.

In contrast, neither Haas nor Madden Jr., alone or in combination, teach or suggest forming “one or more flexible, blast-resistant panels having a predetermined thickness in a range between about 100 mil and 250 mil and constructed of an elastomeric material sprayed onto a fabric reinforcing layer,” and “a plurality of fasteners adapted to fasten said steel channel and said one or more flexible, blast-resistant panels to a wall of said structure so as to cover the wall of the structure with said one or more flexible, blast-resistant panels”, as recited in Claim 27. Therefore, the §103(b) rejection of independent Claim 27 is believed to be overcome. Accordingly, the Examiner is respectfully requested to formally withdraw the §103(b) rejection of Claim 27 and Claim 28 that depends therefrom.

Regarding Claim 30, Claim 30 recites, *inter alia*:

a flexible, blast-resistant panel of a sprayed elastomeric material having a predetermined thickness;

a channel attached around a periphery of the flexible, blast-resistant panel; and

a plurality of fasteners to fasten said channel to a surface of a structure, the flexible, blast-resistant panel sized to extend across and cover an area between opposing sides of the surface of the structure.

In contrast, neither Haas nor Madden Jr., along or in combination, teach or suggest forming “a flexible blast resistant panel” that is “sized to extend across and cover an area between opposing sides of the surface of the structure”, as recited in Claim 30. Therefore, the §103(b) rejection of independent Claim 30 is believed to be overcome. Accordingly, the Examiner is respectfully requested to formally withdraw the §103(b) rejection of Claim 30 and Claim 28 that depends therefrom.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Madden Jr. and further in view of White (United States Patent Number 6,907,811) and depends from independent Claim 27. Applicant respectfully traverses the rejection. Madden Jr. and White fail to make up for the deficiency of Haas and also fail to teach or suggest all of the elements of Claim 27. Therefore, for at least those reasons given above in relation to Haas and Madden Jr. for independent Claim 27, the §103(a) rejection of Claim 29 is also believed to be overcome. Accordingly, the Examiner is respectfully requested to formally withdraw the §103 rejection of Claim 29.

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Madden Jr. and further in view of White and depends from independent Claim 30. Applicant respectfully traverses the rejection and amends Claim 36 for consistency with amended Claim 30. White fails to make up for the deficiency of Haas and Madden Jr. and also fails to teach or suggest all of the elements of Claim 30. Therefore, for at least those reasons given above in relation to Diamond for independent Claim 30, the §103(a) rejection of Claim 36 is also believed to be overcome. Accordingly, the Examiner is respectfully requested to formally withdraw the §103 rejection of Claim 36.

Claims 38 - 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Madden Jr. and further in view of Fyfe and where 38 depends from independent Claim 30 and 39 - 41 depend from Claim 38. Applicant respectfully traverses the rejection and amends Claim 38 for consistency with amended Claim 30. Madden Jr. and Fyfe. fail to make up for the deficiency of Haas and also fail to teach or suggest all of the elements of Claim 30. Therefore, for at least those reasons given above in relation to Haas for independent Claim 30, the §103(a) rejection of Claims 38-41 is also believed to be overcome. Accordingly, the Examiner is respectfully requested to formally withdraw the §103 rejection of Claims 38-41.

Claims 42-45 and 47-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartzell et al. (United States Patent Number 3,522,140) and 43-45 and 47-50 depend from independent Claim 42. Applicant has amended Claim 42 to overcome the rejection.

Regarding Claim 42, Claim 42 has been amended to recite, inter alia:

spraying a second layer of the elastomeric material to a second thickness onto the second portion of the reinforcing fabric material, the combined thickness of the first layer of the elastomeric material, the fabric material, and the second layer of the elastomeric material being in the range of about 100 mil to about 250 mil.

Hartzell et al. fails to teach or suggest that “the combined thickness of the first layer of the elastomeric material, the fabric material, and the second layer of the elastomeric material being in the range of about 100 mil to about 250 mil”, as recited in Claim 42. Therefore, the §103(a) rejection of Claim 42 is believed to be overcome. Accordingly, the Examiner is respectfully requested to formally withdraw the §103 rejection of Claim 42 and Claims 43 and 45 and 47-50 that depend from Claim 42.

Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hartzell et al. and depends from independent Claim 42. Applicant respectfully

traverses the rejection. For at least those reasons given above in relation to Hartzell et al. for independent Claim 42, the §103(a) rejection of Claim 46 is also believed to be overcome. Accordingly, the Examiner is respectfully requested to formally withdraw the §103 rejection of Claim 46.

Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hartzell et al. and depends from independent Claim 42. Applicant respectfully traverses the rejection. For at least those reasons given above in relation to Hartzell et al. for independent Claim 42, the §103(a) rejection of Claim 51 is also believed to be overcome. Accordingly, the Examiner is respectfully requested to formally withdraw the §103 rejection of Claim 51.

Claims 52, 53 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Madden Jr. and further in view of Fyfe. Where Claims 53 and 55 depend from Claim 52. Applicant respectfully traverses the rejection and has amended Claim 52 to overcome the rejection.

Regarding Claim 52, Claim 52 has been amended to now recite, *inter alia*:

a cured, blast-resistant panel of a sprayed elastomeric material having a fabric reinforced layer embedded therein, the cured, blast-resistant panel having a predetermined thickness between about 100 mil and about 250 mil, a percent elongation at break in a range of about 400-800% and a tensile strength of about 2000 psi or greater, the fabric reinforcing layer being substantially planar and including warp

Contrary to the Examiner's assertion, there is no teaching or suggestion in Haas, Madden Jr. or Fyfe that would motivate one of skill in the art to create the combination as stated by the Examiner. In addition, the Haas, Madden Jr. and Fyfe combination fails to teach or suggest "a cured, blast-resistant panel of a sprayed elastomeric material having a fabric reinforced layer embedded therein, the cured, blast-resistant panel having a predetermined thickness between about 100 mil and

about 250 mil”, as recited in Claim 52. Therefore, it would not be obvious to one of skill in the art at the time of the invention to modify the panel to have the thickness of 100-250 mil. Accordingly, the Examiner is respectfully requested to formally withdraw the §103(a) rejection of Claim 52 and Claims 53-55 that depend therefrom.

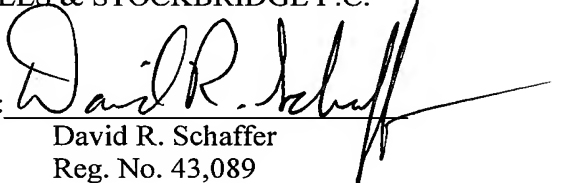
Claim 54 is rejected under 35 USC 103(a) as being unpatentable over Haas in view of Madden Jr. and further in view of Fyfe and depends from independent Claim 52. Applicant respectfully traverses the rejection. For at least those reasons given above in relation to Haas, Madden Jr. and Fyfe for independent Claim 52, the §103(a) rejection of Claim 54 is also believed to be overcome. Accordingly, the Examiner is respectfully requested to formally withdraw the §103 rejection of Claim 54.

Therefore, all of the grounds of rejection under 35 U.S.C. §§ 102(e) and 103(a) are believed to be overcome and withdrawal of the rejections is respectfully requested. Accordingly, Applicants believe that the claims are now allowable and respectfully request that the Examiner issue a Notice of Allowance for the currently pending claims.

All claims as currently presented are believed to be in condition for allowance. Passage of the application to issue at an early date is earnestly solicited.

Respectfully submitted,

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